

not without some practical foundation. I was, however, at the same time convinced that the observations from which it had been inferred that the animal always causes death by the abstraction of blood, must have been very superficially made. I have been assured by persons well-versed in such matters, that even the rabbit is frequently destroyed by a wound in the neck; and I recollect well, when a schoolboy, of having had a young rabbit destroyed by a weasel, and of the astonishment I felt at seeing upon it, when dead, no mark of injury of any kind, but the mysterious bloody patch and small wound on the side of the neck, described above. The truth seems to be, that whenever the Ferret attacks an animal which it is capable of mastering by main force, it despatches him, not by blood-sucking, but by the most speedy and merciful of all modes of inflicting death—piercing the upper part of the spinal marrow; but that when it is opposed to animals of large size and strength superior to its own, it alters its mode of warfare, seizing them where opportunity offers, and clinging to them till they expire from loss of blood, pain, and exhaustion of strength.

XLIII.—*Additions to the Fauna of Ireland, including a few species unrecorded in that of Britain;—with the description of an apparently new Glossiphonia.* By WILLIAM THOMPSON, Pres. Nat. Hist. and Philos. Society of Belfast.

[Continued from p. 315*.]

MOLLUSCA.

Nassa varicosa, Turt. (sp.). *Tritonia varicosa*, Turt. Zool. Jour. vol. ii. p. 365. pl. 13. fig. 7.

A dead specimen was dredged (depth twelve to fifteen fathoms) off the south entrance to Bantry Bay in May 1846 by Mr. MacAndrew.

Pleurotoma teres, Forb. Ann. Nat. Hist. vol. xiv. p. 412. pl. 2. fig. 3.

One dead specimen was dredged from about fourteen fathoms in Birterbuy Bay, county of Galway, in the summer of 1845 by Mr. Barlee. This gentleman—when accompanied by Mr. Jeffreys—obtained in the same bay very fine specimens of the rare *Pleurotoma Boothii*, Smith (sp.)—*Fusus Boothii*, Wern. Mem. vol. viii. p. 98. pl. 1. f. 1.

* As the marks of doubt placed *after* Bonaparte's Sandpiper and the Sword-fish, in the first part of this communication (p. 311, 314) might convey the erroneous impression that there is uncertainty respecting the species, it seems to me desirable to state, that there is no doubt on that subject. Those marks should rather have been placed *before* the name as expressive of uncertainty about the admission of the species into the Irish Fauna.

Pleurotoma striolatum, Scacchi, Philippi, Enum. Moll. Siciliae, vol. ii. p. 168. pl. 26. fig. 7.

A single recent, but dead specimen taken with *Nassa varicosa*, as above. At the late Meeting of the British Association, this was noticed as the first instance of the species having been obtained in the British seas; but Mr. Alder has since informed me that he procured it in Torbay, Devonshire, in the summer of 1845.

Pleurotoma brachystomum, Philippi, *ibid.* vol. ii. p. 169. t. 26. fig. 10.

This species was found in Bantry Bay in the summer of 1844 and 1845 by Mr. Barlee, who has this season procured it on the west coast of Scotland. It was dredged at Zetland by Mr. MacAndrew and Professor E. Forbes, in 1845.

Pleurotoma lœvigatum, Philippi, *ibid.* vol. i. p. 199; vol. ii. p. 169. t. 11. fig. 17.

Mr. Alder writes to me as follows in Oct. 1846:—"I have two specimens of what I take to be *Pleur. lœvigatum*, Phil., from Dr. Farran, who got them in Connemara. This shell I have had undetermined in my cabinet for some time, as Mr. Clark gave me worn specimens several years ago, but there was a doubt at that time whether it was not a variety of *P. nebula*. It appears to be constant in its characters, and a good species." This is the first notice of its occurrence in the British seas.

Ovula patula, Penn. (sp.).

A shell of this species, found some years ago on the sandy beach of Magilligan, county of Londonderry, by Mrs. R. A. Hyndman of Dublin, is in the cabinet of Mr. Hyndman at Belfast.

Natica Montagui, Forb. Malac. Monensis, p. 32.

Three or four specimens were obtained from a depth of forty-five fathoms off Cape Clear by Mr. MacAndrew;—who remarks: "I have besides met with it only on the west coast of Scotland and at Zetland; it is there a common shell in from twelve to fifteen and up to fifty fathoms, on a rather hard bottom." A living *N. Montagui* was dredged in Belfast Bay at the same time with the following species.

Emarginula crassa, Sowerby, Forbes, Ann. Nat. Hist. vol. xiv. p. 410. pl. 11. fig. 1.

A few specimens taken at the Kish Bank in 1845 by fishermen, were found in their boats on their return thence to the Dublin coast by Mr. Doran, jun. (collector of objects of natural history), of whom they were purchased by Mr. Hyndman. This gentleman and Mr. Edm. Getty, when dredging at the entrance of Belfast Bay on the 3rd Oct. 1846, obtained from a depth of twenty fathoms five dead shells of this species. These were from 9 to 14 lines in length; the specimen of this latter size was 10 lines in breadth and 8 in height. A few living and dead specimens of *Emarg. fissura* were dredged with the *E. crassa* on this occasion.

*Pecten fuci**, Gmelin. *P. Landsburgii*, Forbes, Wern. Mem. vol. viii.

Procured on rocky ground, east of Cape Clear (forty to forty-five fathoms), by Mr. MacAndrew, who remarks, that "it is a common, though rather deep-water species. I have obtained it at Scilly, Isle of Man, Mull of Galloway, Glenluce Bay, Clyde and Hebrides—generally adheres to stones; only at Oban have I found it attached to the *Fucus*."

Pecten similis, Laskey, Wern. Mem. vol. i. p. 387. pl. 8. fig. 8.

Numerous valves were dredged from forty-five fathoms off Cape Clear by Mr. MacAndrew, who finds it "an abundant deep-water species from Scilly to Zetland." This species was noted at the suggestion of Professor Edw. Forbes as probably synonymous with *P. lævis*, in my Report on the Invertebrata of Ireland.

Arca raridentata, Searles Wood in Charlesworth's Mag. Nat. Hist. vol. iv. p. 232. pl. 16. fig. 4.

A living specimen, and a valve of this *Arca*, were obtained with the last species. It is a *crag* shell. Mr. MacAndrew procured it alive for the first time off the island of Skye in the summer of 1845.

Neæra cuspidata, Olivi (sp.).

An imperfect specimen was taken with the preceding two species.

Lucina lactea, Poli (sp.), Lam.

Procured off the south-west coast by Mr. MacAndrew—off Baltimore Harbour, thirty fathoms; and from twelve to fifteen fathoms in Bantry Bay.

Tellina balaustina, Linn.

Two valves of this species, as determined by Mr. G. B. Sowerby, were dredged on the occasion already alluded to in Birterbuy Bay by Mr. Barlee. It has not before been noticed as inhabiting any of the coasts of the British Islands.

Montacuta oblonga, Turt. Brit. Biv. p. 61. pl. 11. figs. 11, 12.

Taken in fine sand from thirty fathoms between Baltimore Harbour and Cape Clear by Mr. MacAndrew, who adds, "frequent in company with fine live specimens of *Eulima subulata*."

Botrylloides albicans, Edwards, Ascid. Compos. p. 88. pl. 6. fig. 2.

July 16, 1846.—I found this species attached to the under side of a stone in a pool between tide-marks at Springvale, county of Down. It was likewise attached to *Fuci* (*F. vesiculosus*, &c.) growing in the rock-pools, and was in much smaller masses than the following species; generally but one system of individuals existed in each mass.

* Since the above note was sent to press, I have learned from Mr. Barlee that he obtained this species in Birterbuy Bay (co. Galway) in the summer of 1845.

On the small branches of *Fuci* to which it was attached, there was not room for more; nor was there indeed on the broadest portion of the main stem, whence the leading branches of the plant issued:—the latter is its favourite position. The specimens agreed in all respects with the description and figures in Edwards's work.

Botrylloides rotifera, Edw. Asc. Comp. p. 85. pl. 6. fig. 1? was attached to the under side of the same stone with the last, and covered several square inches of its surface. I mark it with doubt on account merely of some little difference in colour. The "consistance gélatineuse" was rather hyaline than "jaunâtre;" the individual forms were more of a uniform red than in Edwards's figure, and were each as brightly coloured as in *B. rubrum*, Edw., and of the hue that it is represented to be. The individuals being arranged in a scattered manner, and not thrown into masses as in *B. rubrum*, was a striking character.

There is no record of these two species of *Botrylloides* having been procured on any other part of the coast of the British Islands.

CIRRHIPEDA.

Adna anglica, Leach.

Three dead specimens were obtained on fragments of *Caryophyllia* from rocky ground east of Cape Clear—forty to fifty fathoms, by Mr. MacAndrew.

NOTE.

Balanus punctatus, Mont.,

to the exclusion of every other species or form, profusely covers over the stones and rocks between and above tide-marks, on various parts of the coast of Down, as I have also observed it to do on the Dublin coast.

*CRUSTACEA.

Lynceus lamellatus, Müll. *Eurycercus lamellatus*, Baird.

Taken in Lough Neagh at the beginning of August by Mr. A. H. Haliday and W. T.

Cypris reptans, Baird?

Taken with last; together with a species of *Daphnia*, believed by Dr. Baird to be undescribed: the *Lynceus* and *Cypris* were named by this gentleman; the specimen of the latter being in a bad state was marked with a note of doubt.

* *Scorpionidea*.

Obisium maritimum, Leach, Zool. Misc. vol. iii. p. 52.

A very few individuals were taken in fissures of marine rocks at Bangor, (Downshire,) in July 1840, by Mr. Hyndman and myself; one specimen was obtained by us under a stone between tide-marks at Gull Island, Strangford Lough, in June 1846. I compared the Irish specimens with Leach's in the British Museum. The west of England is the only habitat assigned to the species in the 'Zoological Miscellany.'

NOTES.

Portunus holsatus, Fabr., Bell, British Crustacea, part 3. p. 109 (1844).

Professor Bell remarks at p. 111 of the excellent work just referred to, in reference to this species :—"In Ireland, according to Mr. W. Thompson's statement, it has occurred repeatedly ; but as it appears to me that faded specimens of *P. marmoreus* might be easily mistaken for this species, it is always desirable that they should be compared with those well-distinguished specimens which exist in the British Museum." If the figures in any work will suffice, so as not to render necessary an examination of actual specimens, that work is in my opinion Leach's 'Malacostraca Podophthalmata Britanniae.' Several years ago I compared a number of the figures in it with the specimens in the British Museum from which they were drawn by Sowerby, and found them to be represented with such extraordinary accuracy, that I considered a reference to the work itself all-sufficient from that time forward.

The suggestion of my friend Professor Bell commands my entire acquiescence as a general rule, but the comparison was in the present case unnecessary, as the *Portuni* in question from the several localities which I named, were, as stated by me, the *P. lividus* of Leach's work (*P. holsatus*, Fabr.) as contradistinguished from his *P. marmoreus*. Of this fact, I had the pleasure of affording Prof. Bell ocular demonstration on my next visit to London after the publication of the preceding extract. But whether or not these *Portuni* are really distinct species—judging from series of specimens obtained by the author of the 'History of British Crustacea' since the publication of part 3—is for him, and not for me to state. It may be added, that colour alone, unaccompanied by structural differences, was never in the case of any species regarded by me of the least specific value.

Pagurus Cuanensis, Thomp., Bell, Brit. Crust. part 4. p. 178.

June 22, 1846.—A specimen of this *Pagurus* was dredged in Strangford Lough—in fifteen to twenty fathoms water—by Mr. Hyndman and myself. It was alive and inhabiting a *Trochus magus*. A conspicuous character was presented in its beautifully ringed antennæ. These were of a bright red hue alternating with pure white or yellowish horn-colour, the rings of each colour very unequal in extent. The portion of the body exposed to view when this *Pagurus* is *in situ*, is prettily mottled over with reddish brown and white.

ANNELIDA.

Nemertes melanocephala, Johnst. Mag. Zool. and Bot. vol. i. p. 535. pl. 17. fig. 5.

Under stones resting on a rich oozy sand between tide-marks at Gull Island, Strangford Lough, two of this species were obtained in June last by Mr. Hyndman and myself. Both were of a pale yellow colour ; the one half an inch, the other an inch in length : they agreed in every respect with the description and figures cited.

Borlasia octoculata, Johnst. id. p. 537. pl. 18. fig. 2.

A few specimens agreeing in size and all the characters with the description and figures were obtained with the last.

Borlasia purpurea, Johnst. id. p. 537. pl. 18. fig. 3.

This species, differing little from the last in any external character but that of colour, was procured at the same time, but was much more numerous. Several specimens of this and the other species of the same family here noticed were kept alive for three weeks in a phial of sea-water, and thus afforded ample opportunity for observation. The water was not changed during that period, but the length of time that they would have lived under such circumstances was not ascertained, in consequence of my leaving home. The individuals of this species were about 3 inches in length and perfectly agreed with the description and figures: some had only six, and others eight eyes as stated by Dr. Johnston.

Borlasia olivacea, Johnst. id. p. 536. pl. 18. fig. 1.

A worm agreeing in all characters of form and colour with this—having four eyes, and marked with red over the site of the heart; characters specially named as they are apparently not constant—was procured between tide-marks in July 1846 at Bangor, Downshire, by Mr. Hyndman and myself. A specimen agreeing with this, except in having eight eyes, was taken with the species noticed as obtained at Strangford Lough in June, but, judging from zoological characters only, I could not think that it was distinct from *B. purpurea*.

Planaria lactea, Müll. Zool. Dan. vol. iii. p. 47. pl. 109. figs. 1, 2?

This species is marked with doubt from the circumstance of its differing in the following characters from *P. lactea*. The chief central vessel represented in the figure as of about equal breadth throughout, expands in this into an ovate form about the centre of the body—and the ramifications from it, represented as purple in *P. lactea*, are in this of a rich fawn-colour. My specimens are 9 lines in length, when the breadth is 2 lines; eyes pyriform, generally two in number, placed as in *P. lactea* (a specimen had two at one side, and one eye at the other); colour milk-white, but the main vessel and its ramifications, spreading throughout all the body except the mere margin, imparts a handsome delicate fawn-colour to the animal. All of the many specimens taken were of the same colour; the size already noted marks them as considerably larger than Müller's. When in motion they were generally more elongate (of about equal breadth throughout) than *P. lactea* is represented to be, but occasionally appeared of the same form as the figure in the 'Zoologia Danica.'

During an excursion round the shores of Lough Neagh at the beginning of August 1846, when I was accompanied by Mr. A. H. Haliday, this species was found to be very common, attached to stones at the margin of the lake, and to subaquatic plants. It was grega-

rious, several individuals being generally adherent to the under side of a stone a few inches in diameter.

Planaria nigra, Müller, Z. D. vol. iii. p. 48. pl. 109. figs. 3, 4.

This species was found abundantly in the same localities, and under similar circumstances with the last. With the unimportant exception of being more of a brown colour and of rather less size, they perfectly agreed with the figure in the 'Zoologia Danica,' and also with the description, so far as given. They were when fully extended 3 lines in length; under a high magnifying power a row of black dots appeared closely disposed round the margin of the anterior part of the body. Sir John G. Dalyell figures similar dots in his *P. nigra* ("Observations on Planariæ," fig. 5), but in my specimens there are three for one represented in it—in the description however they are mentioned as numerous.

August 22, 1846.—Three *Planariæ* agreeing with Sir J. G. Dalyell's *P. nigra*, and brought from the pond in the Zoological Garden, Phoenix Park, Dublin, with *Hydræ*, &c. in May last, are now living before me. These differ from the *P. nigra* of the 'Zool. Dan.' in being of a jet-black, of a much softer consistence, more shapeless, and being able to diminish themselves to a much less size.

When at rest they sometimes appear as a round black spot, not more than half the size of the other when contracted to the utmost, though when stretched out they reach its full dimensions:—they are much more protean in the forms they assume. The softness alluded to is well shown in Dalyell's figure 15—the L. Neagh specimens are always of a firm consistence. When changing the water on these *Planariæ*, the individuals (I shall not call them distinct species) from each locality exhibited a marked difference, though all appeared in equally good health, the latter always retaining their hold against the sides of the phial, while the others, though the liquid was poured out in the gentlest manner, became detached. Specimens which I have obtained on subaquatic plants in ditches at the outskirts of Belfast were similar to those from Lough Neagh.

Planaria torva, Müll. Z. D. vol. iii. p. 48. pl. 109. figs. 5, 6.

Several individuals just as described and figured in the work referred to were obtained under stones at Church Island, Lough Beg (adjoining L. Neagh), on the occasion alluded to under *P. lactea*. Templeton notices "*P. fusca*, Pallas," as Irish (Mag. Nat. Hist. vol. ix. p. 239) without giving any particulars respecting it. This species and *P. torva* are said by Duges to be identical (Lamarck, 2nd edit. vol. iii. p. 607).

Nephelis octoculata, Moquin-Tandon, Monog. Hirud. p. 302. pl. 3. figs. 1–11. 2nd edit.

Four individuals of this species found among subaquatic plants at Lough Neagh on the occasion already alluded to were brought home for examination. They were not more than half the size of those figured by M.-Tandon, nor of so dark a hue generally—anteriorly

they were somewhat hyaline. They each possessed eight eyes, which changed their places like objects in a kaleidoscope; their usual position was, the four anterior in a straight line across the body, and so they always appeared when the anterior portion of the body was pressed against the phial in the act of progression: the hinder pairs of eyes generally appeared as here represented, or across the body, but occasionally displayed themselves in the opposite direction thus, and the anterior eyes were then seen as figured, the head of the creature at the same time having quite a truncated aspect. Of several species of "*Hirudinées*" brought from L. Neagh and kept alive for a few weeks*, this was the only one that had the power of swimming; it was extremely active, and wriggled about through the water like an *Ammocetes*—it was truly "as merry as a grig."



August 20, 1846.—Among the *Hydræ*, &c. alluded to under *Planaria nigra* as brought from the Phoenix Park, Dublin, was an individual of this species:—the water from which it was taken for examination today had been kept unchanged for three months in a large glass globe.

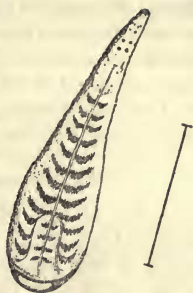
Glossiphonia Eachana, Thompson.

Specific Character.—"Body oval; anterior portion not dilated into a distinctly-formed head; back smooth;" margin slightly crenulate; eyes eight; stomachal lobes eight, subpinnate; prevailing hue hyaline.

The size commonly extends to 9 lines. The eight eyes are disposed in four pairs, each pair on the same segment of the body, the two hinder pairs the larger; eight pair stomachal lobes anterior to great stomachal pouches, subpinnate—as much so as represented in *G. marginata*, Moq.-Tandon, pl. 14. f. 14. 2nd edit.—the two anterior pair are small, and when empty but little apparent; from each side of the stomachal lobes emanate four subpinnate branches which appear in a continuous row with the stomachal lobes anterior to the pouches on each side. It may be remarked that the spur-like form of the stomachal pouches (see pl. 13. fig. 6 c & d, Moquin, 2nd edit.) was not always clearly defined, in which state their four branches appeared as if issuing directly from the main trunk like the anterior eight pair of lobes. This difference will be understood by a reference to Moquin-Tandon's figure 4. of plate 13 (2nd edit.) representing the ordinary appearance, and his fig. 3. pl. 4 (1st edit.) the latter. Four pair of cæca. *Colour*—back viewed with a very high magnifying power exhibited about four distinct rows of white spots, with a few smaller spots irregularly interspersed; but the general aspect was of a glassy transparency of a very pale red tinge, imparted to it by extremely minute dots of red disposed over the body and disc. This glassy transparency rendered the vessels of the di-

* In addition to those named in this communication as previously unrecorded, there were *Glossiphonia sexoculata*, *G. bioculata* and *G. tessellata*.

gestive system, which were of a fine dark red colour, very conspicuous; and, owing to the jagged outline of the series of lateral lobes, &c. the creature was so extremely beautiful, that it might be compared to an arborescent agate. It is well-entitled to the epithet *vermiculus splendidissimus* applied by Müller to the very nearly allied *Gloss. heteroclita**. To that species, it indeed, judging from the description, bears a strong resemblance—but belongs to a different division of the genus:—to that defined as having *more than six stomachal lobes, which are more or less pinnate*, and termed “*Lobina*” by Moquin-Tandon (p. 369. 2nd edit.). This is the genus *Hæmocharis* of Filippi (not of Savigny): the species here described may be termed *Hæm. Eachana* by those who consider the characters of generic value.



Pontobdella lævis, Blainville, Moquin-Tandon, Monog. Hirud. p. 290. 2nd edit.

A *Pontobdella* in my collection agrees with this species in all the detailed characters assigned to it in the work referred to, in which the description is taken from Blainville's in the ‘Dict. Sci. Nat.’ t. 47. 1827, p. 243. The species differs from *P. muricata* and *P. verrucata*, as its name denotes, in being smooth; which it is all over the surface. Where the specimen described by Blainville was procured was not known; but it is stated to have been sent to him by M. Parretto of Genoa. Mine, which may be noted as 4 inches in length, was obtained alive in April 1838, either at Portpatrick or Donaghadee by Capt. Fayer, R.N., who commanded the mail steam-packets between these ports. This gentleman remarked at that period, when sending me the specimen, that he found it in the bottom of a fisherman's boat, into which it must have been brought with sea-weed, then being gathered for manure at low-water. This *Pontobdella* gave out to the spirits in which it was put for preservation a beautiful scarlet colour. A specimen of *P. muricata* which I lately (Oct. 1846) received imparted a beautiful and intense green colour to the spirits in which it was placed.

NOTES.

Ditrupea subulata, Berkeley.

The only part of the coast on which this interesting species has hitherto been noticed being the north-west (Zool. Jour. vol. v. p. 424), it may here be mentioned that specimens dredged by Mr. MacAndrew from forty fathoms, and still deeper water off the Old Head of Kinsale and Cape Clear, have been kindly given to me by that gentleman, as have others by Mr. Stutchbury (the able Curator of the

* Müller, ‘Helminthica,’ p. 50, where a very full description is given of the species.

Bristol Institution) dredged from ninety-three fathoms, at a distance of ninety miles (English) due south of the last-named locality. Mr. MacAndrew considers this "an abundant deep-water species," and has "obtained it off Scilly in forty-five fathoms; in the middle of St. George's Channel from sixty fathoms; and westward of Zetland from eighty fathoms."

Planaria cornuta, Müll., and *P. vittata*, Mont.

In the month of May 1845 I made a communication to this Journal (vol. xv. p. 320) on the subject of the *P. cornuta*, Müll., in which it was remarked, that the individuals described were more round in outline than Dr. Johnston's specimens, as represented in the 'Magazine of Natural History,' and still more so than those of the 'Zoologia Danica,' but that I was unwilling to consider them as specifically different.

In the following month of September, M. Quatrefages published in the 'Annales des Sciences Naturelles,' an elaborate and splendidly illustrated memoir on *Planariæ* discovered by him on the coasts of France, Italy and Sicily, and gave new names to the species. One of these, found at St. Malo, is the same as that obtained in Belfast Bay, and is called *Proceros sanguinolentus*. No reference is made by the author to the *P. cornuta* described and figured by Müller in the 'Zoologia Danica,' and by Johnston in Loudon's 'Magazine of Nat. Hist.' for 1832, either with respect to his species being the same, or nearly allied to them. Having myself looked critically to the subject, I can state with certainty that the species procured in Belfast Bay is identical with that of Quatrefages, and have indeed no doubt that Dr. Johnston's is also. Müller's I am now rather disposed to regard as different, in which case the name of *Proceros sanguinolentus*, Quat., or *Planaria sanguinolenta*, Quat., may be adopted for the British species.

In the same memoir, this author described and figured what is called a new species under the name of "*Proceros? cristatus*." This is the *Planaria vittata*, of which a description and figure were given by Montagu in a paper read to the Linnean Society in 1807, and published in the 11th volume of the 'Transactions.' This author knew the species only from two individuals taken at the same time at Kingsbridge, Devonshire. The next notice of it known to me is in a communication made by myself to the 5th volume of the 'Annals' (p. 247), in which an individual was recorded as dredged in Strangford Lough in October 1839. In the month of July of the following year we took a second specimen (between tide-marks in this instance) at Roundstone, on the western coast of Ireland.

It is to be regretted, for the sake of science, that M. Quatrefages, who is bestowing such unwearied attention on the more obscure portions of the marine *Invertebrata*, and illustrating his subjects in such a splendid manner, should not have been aware of the investigations of those who have preceded him, and above all of the writings of Montagu, whose researches were chiefly made on the opposite side of the same channel as his own. This species is an in-

stance in point, having been found by M. Quatrefages at St. Vast-la-Hogue in Normandy, and Montagu's, as already stated, in Devonshire.

ECHINODERMATA.

Brissus lyrifer, Forbes, Brit. Echin. p. 187.

Of this species—discovered by Professor E. Forbes in the Clyde in 1840—a few individuals were obtained off the south-west coast of Ireland by Mr. MacAndrew. To use this gentleman's words, "One or two specimens were brought up from a depth of forty fathoms off Cork, and off Cape Clear, and from thirty fathoms in Bantry Bay, near Great Bear Island. I have found it a frequent inhabitant of muddy bottoms in from 12 to 100 fathoms."

Holothuria.

Since the publication of Forbes's 'History of British Echinodermata,' a species of this genus as now limited (with normally twenty tentacula) was noticed by Mr. Couch in the 'Cornish Fauna' (part 2. p. 73); and another, believed by Mr. Peach to be distinct, has been described and figured in the 'Annals,' vol. xv. p. 171. pl. 14. At Tory Island, off the north-west coast of Donegal, Mr. Hyndman procured a specimen of this genus in a rock-pool between tide-marks in August 1845. I abstain from naming the species even with doubt in the present state of our knowledge of the *Holothuriæ*.

Syrinx Harveii, Forbes, Brit. Echin. p. 249.

Two specimens of a *Syrinx* were dredged in Strangford Lough from a depth of fifteen to twenty fathoms on an oozy bottom in June last by Mr. Hyndman and myself. They agree with the *S. Harveii*, and at the same time with the *S. granulosus*, M'Coy (Annals, vol. xv. p. 272. pl. 16. fig. 2), accordingly as they are viewed by the unassisted eye or by magnifying power. The body of the former is described as being "quite smooth," of the latter "nearly smooth, very minutely and uniformly granulated;" a difference which we might expect to find between examples of $2\frac{1}{2}$ and 7 inches in length; these being the respective dimensions of those described by Professor Forbes and Mr. M'Coy. The body of my specimens—the larger of which is under 2 inches in length—appears to the unassisted eye not only quite smooth, but shining, though in a subdued tone; yet, when magnified, extremely minute papillæ are seen over its surface. I therefore regard *S. granulosus* as not distinct from *S. Harveii*. The figure of *S. granulosus* represents my specimens very well: they are of a very pale grayish brown colour.

NOTES.

Cucumaria fusiformis, Forbes and Goodsir, Brit. Echin. p. 219.

This species has already been enumerated in my Report on the Invertebrata of Ireland, but no particulars respecting it have been published. The specimen there alluded to, was dredged in ten
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fathom water, at Donaghadee, by Dr. J. L. Drummond in the summer of 1843.

Cucumaria Hyndmani, Thomp., Forb. Brit. Echin. p. 225.

A specimen of this *Cucumaria*, hitherto known only as Irish, was taken at Saltcoats, Ayrshire, in June 1845, and has been kindly sent to me by the Rev. D. Landsborough.

ZOOPHYTES.

Coryne Listeri, Van Ben. (sp.).

Syncoryna Listeri, Van Ben. (sp.), Johnst. Brit. Zooph. p. 41. pl. 2. 2nd edit.

I obtained this zoophyte in July last attached to stones between tide-marks at Ballyholme, Belfast Bay. Both polype and polypidom agreed in every character of form and colour with the description given in Dr. Johnston's work, but I cannot think this and the *Coryne* (*C. squamata*, Johnst. Brit. Zoop. pl. 2. figs. 2 & 3. 1st edit.) which is commonly found on the *Fuci* (especially *Fucus nodosus*) of our shores, the same species. This latter generally forms masses at the base of the branches and around the stem of the plant named: each individual rises singly from its base, as represented in the figures referred to. The one is a branched, the other a simple species: the polypidom is horny (*Tubularia*-like) in *S. Listeri*; in the other soft and fleshy.

Turbinolia milletiana, DeFrance.

This species, only known as fossil until Mr. MacAndrew dredged it alive off the coast of Cornwall in the spring of 1845, was obtained by similar means off the Isles of Arran (Galway Bay) in the summer of that year by Mr. Barlee.

Since this note was taken, the Irish station has been published in the 2nd edit. of Johnston's 'Zoophytes.'

Corynactis Allmani, Thompson.

A species of *Corynactis*, differing considerably from *C. viridis*, Allman (Ann. Nat. Hist. vol. xvii. 417. pl. 11), has been procured by dredging in Belfast Bay and Strangford Lough (fifteen to twenty fathoms). It is somewhat doubtfully on my part given as specifically distinct from *C. viridis*; but Professor Allman, to whom a specimen was submitted in a living state, considers it to be so.

Spec. Char.—*C.* with several regular concentric series of capitate tentacula, those of the third and fourth rows being about equally regular and numerous as those of the two outer rows: those nearer the mouth irregularly disposed.

The colour—red of various shades—is wholly different from that of *C. viridis*, though not included in the diagnostic characters. A full description of the species has been forwarded to Dr. Johnston for the 2nd edition of his 'British Zoophytes.'

Dysidea ? papillosa, Johnst. Brit. Sponges, p. 190. pl. 16. fig. 6.

This species, dredged from a depth of fifteen to twenty fathoms

in Strangford Lough, on the 22nd June last, by Mr. Hyndman and myself, was brought home in a living state, and proved on the expansion of its tentacula to be a Helianthoid Zoophyte. It was then noted as—"Coming very near *Zoanthus*, Cuv. (Règ. Anim. vol. iii. p. 293. edit. 1830), if indeed it should be generically separated from it. The character of 'each individual rising from a common base' does not apply to it, and the generic character must consequently be either altered to suit the species, or this be constituted a new generic form." Other observations made at the same time are now unnecessary (as the sequel will show)—the preceding note is given merely with reference to one on this subject at p. 252, second edition 'British Zoophytes.'

When lately on board Mr. MacAndrew's yacht at Southampton, Professor E. Forbes pointed out to me living specimens of *Zoanthus Couchii* (according to the Cornish Fauna) which had been dredged off the southern coast of England, and these to my surprise proved to be the same species as I had obtained.

All the specimens named "*Z. Couchii*" that I had previously seen, were the very different *Sarcodictyon catenata*, Forbes (Johnst. B. Z. p. 179.* pl. 33. figs. 4-7, 2nd edit.). On referring to Couch's work, I agreed with my friend about the identity of the species, which, being certainly the same as that from Strangford Lough, decided, at least to my mind, the question that *D. ? papillosa* and *Z. Couchii* are not distinct. Dr. Johnston, not having seen the living animal, placed his *D. papillosa* doubtfully among the Sponges. In doing so, he judiciously remarked, that it is "nearly allied to the *Alcyonium ocellatum* of Ellis and Solander, Zoop. p. 180. tab. 1. fig. 6; and it is probable that the two productions are of the same nature, whatever this may be."—Brit. Spong. p. 191.

This species was dredged by us in Strangford Lough in 1835, as noticed in the 'Annals' (vol. v. p. 254). It was, as on the last occasion, found adherent to dead bivalve shells—*Venus aurea*, *V. ovata*, *Corbula striata*. The figure referred to in the 'British Sponges' represents the species from this locality.

AMORPHOZOA (SPONGES).

NOTES.

When dredging in Strangford Lough on the 22nd of June last with Mr. Hyndman, we were singularly fortunate in the number of sponges obtained; there were as many species as all our former dredgings combined produced:—the depth was from fifteen to twenty fathoms, the bottom soft and rather oozy. Among them were two new species, which await Dr. Johnston's description: one of these however, previously taken elsewhere is in that author's possession, though as yet undescribed. Three others of interest, although not additions to the Fauna, may be noticed.

* Dr. Johnston has here (p. 180) correctly brought the Youghal species under this—it is the *Zoanthus Couchii* of my Report.

Tethea lyncurium, Linn. (sp.), Johnst. Brit. Sponges, p. 85. fig. 12 (p. 87).

A few individuals of this species were procured: they were both on dead and on living specimens of *Modiolus vulgaris*, and on dead univalve shells. They were all bright yellowish orange in colour (hence Pallas' name *aurantium*) when recent, but became at once discoloured on being put in spirits. The largest *Tethea* is $1\frac{3}{4}$ inch high by $1\frac{1}{2}$ inch in diameter. The numerous spicula were in some individuals confined to the apices of the tubercles, and in others projected from all parts of them, so as to give to the entire surface of the animal when alive a conspicuously hispid appearance. One or two specimens of what seem to be young *Tetheæ* (half an inch diameter) on the same shell with the old, are quite smooth on the surface.

Halichondria (Tethea) carnosa, Johnst. Brit. Sponges, p. 146. pl. 13. figs. 7, 8.

The only locality for this species given in the work referred to, which was published in 1842, is Roundstone Bay, Connemara. The author omitted noticing the species as from Strangford Lough, where I dredged it in July 1838, and sent it to him with many other sponges, on being informed of his contemplated work upon the subject: in the same year this species was procured in Belfast Bay* by Dr. Drummond. In July 1840 it was dredged by our party at Killery Bay, Connemara; two specimens thence in my collection, as well as the first alluded to, are attached to *Turritella terebra*. Several procured in Strangford Lough in June last are attached to *Cytherea ovata*—the largest is $2\frac{1}{2}$ inches in height, and quite pyriform.

Halichondria hispida, Mont. Wern. Mem. vol. ii. p. 86. pl. 5. figs. 1, 2; Johnst. B. S. p. 98.

This species was only I believe known from Montagu's description of specimens obtained in Devonshire until the month of March last, when Dr. Scouler, in a contribution to this Journal, (vol. xvii. p. 176) noticed it as having been dredged from deep water at Roundstone by Mr. McCalla, collector of objects of natural history. A few specimens were taken under the circumstances already mentioned in June last at Strangford Lough: the largest is attached to a valve of *Cytherea ovata*, over which its base spreads, and thence it branches out on either side. Montagu's figure of the species is characteristic, and his description admirable as usual, and so full as to require no addition. *Halichondria mammillaris*, *Dysidea fragilis*, *D. ? papillosa* (as already noticed), *Cliona chelata*, &c. were obtained on the same occasion.

The only Irish station given in Johnston's 'British Sponges' for

* It is noticed in the 'Annals' for March last, p. 177, as lately [1845] found here.

the two following species being Dublin Bay, I shall here copy some notes upon them ;—their forms have been known to me since 1835.

Halichondria incrustans, Esper. (sp.), Johnst. B. S. p. 122. pl. 12. fig. 3. and pl. 13. fig. 5.

Abundant, adherent to rocks between tide-marks on the Down coast. Dr. Johnston calls it an "unattractive species," in which—but it is a matter of mere taste—I cannot agree. Its reddish orange colour on the dark rocks is to my eye most lively and pleasing, and more particularly so, when other sponges are in its immediate proximity. At Ballyholme, Belfast Bay, within the space of a very few square feet, this species may be seen in small orange patches on the rock ; *Hal. panicea* in green masses, and by throwing aside the hanging fronds of *Fucus nodosus* (covered by their parasite *Polysiphonia fastigiata*), *Ptilota plumosa* densely clothing the shaded rock is exposed to view, and on it the *Grantia botryoides* and *G. foliacea* grow plentifully, and the *G. ciliata* is sparingly seen.

Although *H. incrustans* inclines generally to look directly down upon the water, or to grow on the under surface of rocks (see Grant, quoted in Johnst. B. S. p. 124), I find it also attached to their perpendicular sides, and when so, the "fecal orifices" are elevated, but not very much, above the surface.

Grantia coriacea, Mont. (sp.), Johnst. Brit. Sponges, p. 183. pl. 21. fig. 9.

was found on an *Anomia* attached to an oyster dredged at Killough, Downshire, March 1835. W. T.

XLIV.—*The Birds of Calcutta, collected and described by*

CARL J. SUNDEVALL*.

[Continued from p. 309.]

44. *Bucco philippensis*, Briss., L., Lath., Temm. in Pl. Col. livr. 88.—*B. indicus*, Lath. (*B. parvus*, Gm., Lath. est junior, auct. Temm. loc. cit., quod nomen potius ut specificum adhibendum ; sed junior mihi ignotus.)

Olivaceo-viridis, subtus flavescens viridi-maculatus ; fronte maculae pectoris antici coccineis ; gula, macula supra aliaque infra oculos flavissimis. (♂ ♀ adulti, simillimi, Febr. Martii.)

Longit. 6 poll. Ala 83 mill., tarsus 18, cauda 38. Pedes pallide rubri. Orbita nuda, rubra. Iris rubra. Lingua plana, lata, basi ut vulgo sagittata ; margine membranacea, apice obtusa ; leviter lacero-bifida. Remigum 1^a brevissima ; 4^a reliquis longior. (Testiculi in medio Febr. tumidi. Ova tumida et oviductus crassitie intestini, initio Martii.)

This handsome little bird was common around Calcutta, and

* Translated from the 'Physiographiska Sällskapets Tidskrift' by H. E. Strickland, M.A.